Pool Alarm

User Guide

Contents

1. General Description

The Pool Alarm system is a radio based call system operating at a frequency of 173.225 MHz with 10mW e.r.p, conforming to BS6799 class VI and MPT1344. The system has 240-volt wall mounted control panel receivers having master internal or remote displays providing 2 lines of 20 character full alphanumeric text.

The system and its display's provide individual alarm and fault information in plain English text together with a separate day, night and programming modes of operation. The control panel also provides, a 12 volt rechargeable mains fail battery back-up giving up to 12 hours standby cover, 2 full monitored programmable outputs, 2 programmable auxiliary relays and 2 hardwired alarm inputs. A series of 9 pin RS232 ports provide printer or PC connectivity, a 9 pin RS232 pager port with a number of selectable pager formats and provision for an integral paging transmitter, a programming port and a two way communications port. The control panel also provides a 500-event rolling memory log, together with a separate 500 event saved alarm activation log. The system is modular with the ability to add up to 3000 unique radio devices of varying types.

The system has the ability to accept an infinite number of additional remote displays all complete with 2-line 20-character backlit plain English text and integral alarm acknowledgement / muting button. Each display also has the ability to be zoned and provided specific alarm information for dedicated activation devices in given zones.

The systems location devices are ceiling or wall mounted devices combing both radio and infrared technologies operating on frequencies of 173.225 MHz and 36 KHz. The units are fully monitored and supervised with automatic self-testing and fault reporting conforming to the requirements of BS6799 class VI radio devices. Each device has a unique factory set identity, tamper alarm *(ceiling units)*, reset button and automated self-test facility. The devices are battery powered by either one or two 3.6-volt lithium batteries with the battery levels being monitored by the Control Panel.

2. Display Operation

There are two types of Control Panel:
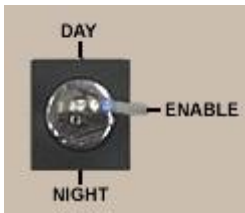
Configuration
Editing buttons

System
Status LED's

Keyswitch set to "Enable" allows access to the
system's configuration files

*When the keyswitch is in the enable position, the
Silence Button is used to access the configuration menu.*

2.1   Operation

For normal operation *(no calls or alarms on the system)* the panel display will show:

'D' = Keyswitch in Day mode
'N' = Keyswitch in Night mode

D	**20/05/14**	**14:04**
	'Agents Name & Phone Number'	
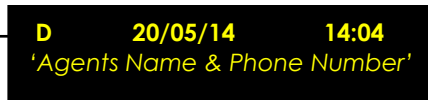
From time to time the Rx & TX leds will flash indicating that the system and devices are communicating.

2.2   Day/Night Mode.

The keyswitch on the front of the display module has 3 settings:

-   **Day**
-   **Night**
-   **Enable**

*For Normal Operation the keyswitch
should be in the Day/Night position
and the light above the Enable button
should NOT be lit.*

Day and **Night** settings are for the normal operation of the system and are indicated by a **D** or **N** at the top left of the display. These settings influence the type of response the system will show for any alarm, call or fault that occurs on the system.

In Night mode a quieter sounder is used for all Calls on the system & faults will be displayed but without the sounder making a noise.

The **Enable** key position activates the buttons on the front of the display such that system parameters may be changed. The Silence button does not silence the sounder in this mode, but instead is used to access the menu structure.

2.3   Calls on System

In the event of a Call/Alarm signal being sent by a unit the display will show the name and type of call for staff to attend. The call will remain on the displays until the unit has been reset. If there is more than one call on the system, they will rotate.

MAIN POOL
EMERGENCY

Calls will also be displayed on any staff pagers and re-paged every minute until reset *(re-page time configurable)*. When a call has been attended to and the unit reset a Cancel message will then be sent to the pagers to inform staff.

2.4   Control Panel/Display Sounders

The Control Panel/Display sounders will make a different noise depending on what type of Call/Alarm is on the system, so staff can audibly differentiate between the Call types:

CALL TYPE	SOUNDER TYPE
Assistance	*Fast Intermittent*
Emergency	*On Constant*

The panel will return to normal operation only when the unit sending the call has been reset.

If Sounders/Flashing Beacons are fitted to the system, these can be programmed to activate on various call levels or call point types.

2.5   Silence Button

Pressing the Silence button on any of the Display units when a Call/Alarm is on the system will cause all the sounders to remain quiet, the Call/Alarm information will still remain on the Displays.

If a Call/Alarm remains unanswered, the sounders will resound after **4** minutes to remind staff that the Call still needs attending to. **Emergency** alarms will cause the panel to resound after **1** minute. *(Sounder silence times are configurable)*

If the Silence button has been pressed following a Call, and then another Call comes onto the system, the Sounders will re-sound to advise staff that there is another Call which needs attending to.

3. Help Call Units

Help can be requested by pressing either the RED (Emergency) or ORANGE (Assistance) buttons located on the front of the unit.

1. Call Reassurance LED
2. Red Emergency button
3. Orange Assistance button
4. Green Reset
5. Infra Red Sensor

3.1   Call Levels

Assistance - Press the **Orange button** on the unit.

Emergency - Press the **Red button** on the unit.

3.2   Resetting Call Points

Press the **Green Reset button** on the front of the unit.
Once a Call Point is triggered it will continue to transmit until it is reset. It is therefore important to reset a call point when its Call or Alarm is being dealt with to avoid confusion for other staff and to save them any unnecessary visits.

Note: *If the reset signal is not received by the control panel, it will be necessary to press the reset button again.*

3.3   Battery Replacement

To replace the battery in the Help Call units following a Low Battery fault, remove the four corner screw covers with a small flat bladed screwdriver. Un-screw the four screws to release the front of the unit.

Remove the exhausted battery and dispose of in a safe way and replace with a new battery. Replace the front cover and screw the front closed and replace the four corner screw covers.

The Help Call units require one battery per unit: re-order code: **BAT-AAL**.

4. Emergency Alarm Units

Similar to the Help Call Unit this call point offers Emergency level of alarm only.

1. Red Emergency Pull switch with reassurance LED

4.1   Call Levels

Emergency – Pull the **Red pull switch** on the unit.

4.2   Resetting Call Points

Push the **Red Pull switch** back into place, the LED will stop flashing and the unit will reset.

4.3   Battery Replacement

To replace the battery in the Affray Alarm unit, following a Low Battery fault, remove the four corner screw covers with a small flat bladed screwdriver. Un-screw the four screws to release the front of the unit.

Remove the exhausted battery and dispose of in a safe way and replace with a new battery. Replace the front cover and screw the front closed and replace the four corner screw covers.

The Emergency Alarm units require one battery per unit: re-order code: **BAT-AAL***.*
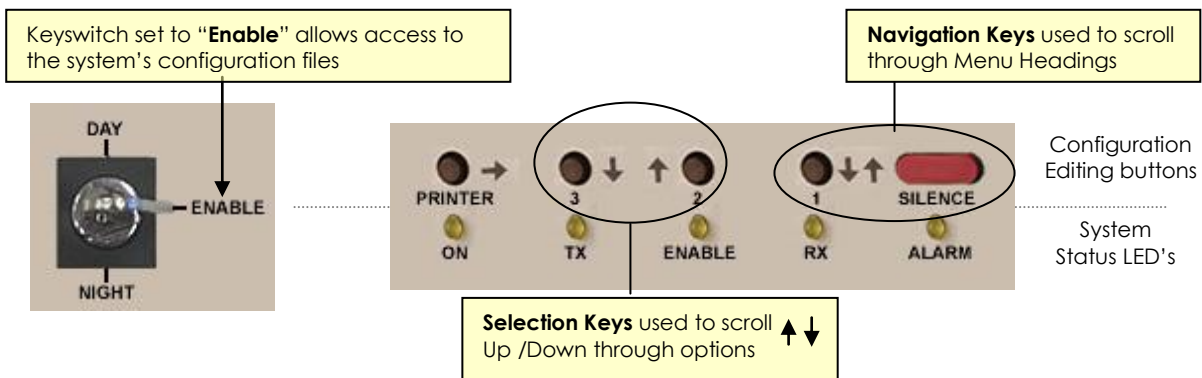
5. User Menu

The User Menu enables the following parameters to be modified/interrogated:

- Unit Isolation
- Time
- Date
- Battery Log
- Print Event Log
- Sensor Name
- Patient Name *(only used on systems with Resident IR key fobs)*
- Staff Name *(only used on systems with Staff IR key fobs)*
- Promote Patient Call *(not applicable)*

Access to the User Menu is done using the keyswitch and buttons on the front of the Master Display Unit:

- Turn the keyswitch on the Display unit to the **Enable** position *(ensure light above enable lights up)*.

- Press the **Silence** button to select the **User Menu**.

- Then press the (up arrow) ↑ key <u>above</u> the Enable light to enter the User Menu.

Keyswitch set to "**Enable**" allows access to the system's configuration files

Navigation Keys used to scroll through Menu Headings

Configuration Editing buttons

System Status LED's

Selection Keys used to scroll Up /Down through options ↑ ↓

5.1   Isolate Sensor

- Enter the User Menu

- Press the Silence button until the display shows:

ISOLATE SENSOR
ON   *"sensor name"*

This menu allows individual sensors to be isolated from System Operation.

- Use the **Selection Keys** to scroll through the sensors on the system.

    ↑ **Up** arrow above Enable light to navigate up through Sensor list.

    ↓ **Down** arrow above TX light to navigate down through Sensor list.

    Use the ➔ key *(Printer key)* to turn a Sensor **ON** or **OFF**.

Note: If the sensor was in fault at the time it was isolated it will be necessary to reset the Fault message by turning the keyswitch to Night and then back to Day.

- As a reminder that a unit has been isolated off the system, the display will show:

1 ISOLATED

- This unit can now be sent for repair/replacement, the system will ignore that it is missing from site until it has been returned and can then be un-isolated.

5.2   Setting the Time

- Enter the User Menu.

- Press the Silence button until the display shows:
  (with the cursor flashing on the hour)

CHANGE TIME
Time 08:30

- Use the **Selection Keys** *(above TX & Enable)* to change the time and press the ➔ key *(Printer key)* to move the cursor between the hour and minute fields.
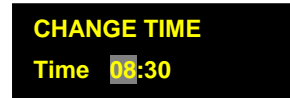
Note: To save the changes to the Time press the <u>Silence Button</u> once the new time has been entered.

5.3   Setting the Date

- Enter the User Menu.

- Press the Silence button until the display shows:
  (with the cursor flashing on the day)

CHANGE DATE
Date 23/06/14

- Use the **Selection Keys** *(above TX & Enable)* to change the date and press the ➔ key *(Printer key)* to move the cursor between the day/month/year fields.

Note: To save the changes to the Date press the <u>Silence button</u> once the date has been entered.

5.4   Sensor Battery/Signal Strength Log

- Enter the User Menu

- Press the Silence button until the display shows:

BATTERY LOG/PRINT
3.5V *"sensor name"*

- Use the **Selection Keys** *(above TX & Enable)* to scroll through each sensor to view the battery volts.

- If a Printer / PC is connected then the Battery/Signal Strength Log for all the sensors may be printed out by pressing the ➔ key *(Printer key)*.

  <u>This prints:</u>
Sens	-	Sensor Number	-	Sensor Number allocated to each Unit
Batt	-	Battery Voltage	-	Last received Battery Volts
TIME	-	Current Time	-	Time Count since last reception
Lst	-	Last	-	Last Time Interval between receptions
Max	-	Max Time	-	Maximum Time between receptions
RSSI	-	Average Signal Strength	-	Average Signal Strength of Units

  Note 1:   Sensor numbers 235 to 266 relate to the Control Panels.
  Note 2:   The Last & Max times are historic Values.

5.5   Event Log

Enter the User Menu

EVENT LOG
↑↓ Selects ➔ Prints

- Press the Silence button until the display shows:

- Press the ↓ **Selection key** above TX light go back in time to view past events.

- If a Printer / PC is connected the Event Log may be printed out from the historic event selected in the display up to the present date by pressing the Printer key ➔

5.6   Edit Sensor Names

Plug the keyboard into the socket on the base of the display.
(for panels with internal displays the socket is inside the panel on the back of the display PCB)

Enter the User Menu

- Press the Silence button until the display shows:

Serial Number of unit ⟶ **Sn_054367 Sensor_001** ⟵ Sensor Number of unit
Unit Location Label ⟶ **L_MAIN POOL 1**

Then Unlock the Memory for editing *(see Appendix A)*

- If you know the **Serial number** of the unit whose label you wish to change, type it in on the keyboard, then press Return. The units' Sensor number and existing Label will be displayed. Press Return twice to move to the "**L_xxx**" field *(Location Label)*.

- If you do not know the Serial number of the unit whose label you wish to change, but you do know the **Sensor number**, press Return on the keyboard to move the cursor to the next field, then type in the Sensor number of the unit and press Return.

    - **Type the new label that you wish the unit to have and press Return to save it.**

    - If the new label is shorter than the old label, use the space bar key to remove leftover characters.

    Remember to re-lock the Memory *(see Appendix A)*

- If you do not know **either the Serial or the Sensor Number** of the unit whose label you wish to change, press Return so that the Sensor field is highlighted and use the **Selection keys** *(above TX & Enable)* to scroll up and down through the units on the system until you reach the unit that needs changing.

    - Once you have reached the unit that you wish to change the label for, press Return on the keyboard to move to the bottom line **(Location Label field)** and type the new label that you wish the unit to have, press Return to save the new label.

    - If the new label is shorter than the old label, use the space bar key to remove leftover characters.

    Remember to re-lock the Memory *(see Appendix A)*

- To **EXIT** the USER Menu, turn the Keyswitch to Night and then back to the Day position.

5.7   Patient Name – *NOT APPLICCABLE*

Patient Keyfobs can be personalised with the Patient's name if required. *(default is Patient 1,Patient 2 etc)*

- To rename a Patient Keyfob plug the keyboard into the socket on the base of the display.
  (for panels with internal displays the socket is inside the panel on the back of the display PCB)

- Enter the User Menu

- Press the Silence button until the display shows:

PATIENT NAME   1 ⟵ Patient Keyfob sensor number
Keyfob name ⟶ **PATIENT 1**

Then Unlock the Memory for editing *(see Appendix A)*

- Press the ↓↑ buttons above TX & Enable lights, to scroll through the Keyfob sensor numbers until to reach the keyfob number that you want to change the name for.

- Type the new name and use the space bar to over type any remaining characters from the previous label.

- Press Return to save the new name.

- To **EXIT** the USER Menu, turn the Keyswitch to Night and then back to the Day position.

Remember to re-lock the memory once finished *(see Appendix A).*

5.8   Staff Name

Staff Keyfobs can be personalised with the Staff's name if required. *(default is Staff 1,Staff 2 etc)*

- Follow the same procedure as for editing Patient Keyfob names *(Section above)*

- ***the display you require is:***

Keyfob name ⟶ | **STAFF NAME   1** ⟵ Staff Keyfob sensor number
STAFF 1

Remember to re-lock the memory once finished *(see Appendix A).*

6. Trouble Shooting

In the event of a system fault, please firstly refer to the troubleshooting section below. If you then require assistant please contact your Installer/Supplier.

- ## Constant Assistance or Emergency

<u>Fault:</u>   The Wall Unit sends Assistance or Emergency. When reset is pressed, the system Resets but goes straight back into alarm with Assistance or Emergency.

<u>Cause:</u> Check the buttons are free and the Red Pull Switch has been pushed back into place.

- ## Constant Bleeping from a Unit

<u>Fault:</u>   The Wall Unit bleeps constantly.

<u>Cause:</u> Check the Reset button operates freely.

- ## Unit Calls But Does Not Reset

To temporarily minimise the nuisance effect of this fault, the faulty unit should be **isolated via the User Menu** and replaced with a spare unit until the faulty unit can be repaired/replaced.

- ## Low Battery

<u>Fault:</u>   **Low Battery** is indicated on the Control Panel against a Unit location.

<u>Cause:</u> The Unit's battery is low and its internal battery should be replaced.

- ## RF Fail / RF FLT

<u>Fault:</u>   **RF Fail / RF FLT** is indicated on the Control Panel against a Unit.

<u>Cause:</u> The Unit has failed to communicate with the Control Panel. Put the unit in question into alarm and then reset it. If the alarm is NOT received or the unit does not Reset, then firstly change the battery and retry. If the unit still does not work properly then it will need to be replaced.

A 'RF Fail' fault will also show if any of the systems' units are taken away from site without firstly isolating them from the system.

- ## Fault Warnings on Display

If a fault appears on the system the display will show, for example:

**MAIN POOL 4
LOW BATTERY**

(or RF/FLT, instead of LOW BATTERY)

- ## Fault Codes

RF FLT or RF Fail	Radio Fault
LOW BAT	Low Battery

DAY MODE:
If the panel is in the **DAY** mode the Internal Buzzer will sound intermittently, pressing the Red Silence Button will cancel the buzzer but the fault will continue to be displayed.

NIGHT MODE:
If the panel is in **NIGHT** mode then the fault will only be displayed and the panel will be silent.

7. Service & Maintenance

All Units on the system will periodically transmit their status to the Control Panel, enabling the system to monitor the functionality of all units on the system.

The Control Panel will also monitor the battery levels of all the units incorporated into the system and notify you of any Low Battery faults when they arise, giving you 30 days notice before the battery becomes too low.

If a fault or low battery is detected the Display will show the Sensor number and its location along with the fault.

For information about replacing the batteries in the various units please see *Battery Replacement* at the end of the relevant sections.

For faults firstly refer to the **Trouble Shooting** section, if the fault persists then contact your Installer/Supplier.

Do not remove any of the Call Points/Units from the site as this will cause the control panel to raise a warning that a unit is missing *(RF Fault will be displayed)*

We recommend that you have your system serviced once a year and at least once every three years to replace all system batteries.

Appendix A: Unlocking Memory

Before Editing Unit names, the memory must be "enabled". To do this, Open Control Panel door and move the jumper on LK1 so that it connects both "B" pins. When the memory is "enabled" the memory LED illuminates on new panels only. (see below)

To "Enable Memory", a memory jumper must connect both "B" pins on LK1.
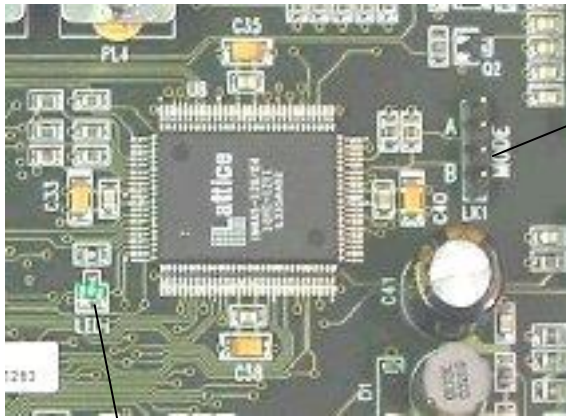
When the Memory is "Enabled" this LED illuminates

NOTE: (LOCKING MEMORY)
To **Lock Memory** after programming remove the jumper from both "B" pins, (the Memory LED will turn off) and park the jumper on one pin only for future use.